**OUTLINE SHEET 1-6-1**
Cold Iron Watchstanding

A. Introduction

The lesson topic will familiarize you with the responsibilities of the cold iron watch as well as the proper response to various abnormal conditions.

B. Enabling Objectives

1.18 **DESCRIBE** the duties and responsibilities of the cold iron watch.

1.19 **IDENTIFY** abnormal conditions in the main engineering spaces.

1.20 **DESCRIBE** the procedures for preventing fires through good housekeeping practices.

1.21 **DESCRIBE** safety precautions to be observed when in the vicinity of hot work.

1.22 **DESCRIBE** the procedure for conducting an inspection rounds of the cold iron spaces in a simulated engineering environment.

C. Topic Outline

1. Introduction
2. Overview
3. Duties and Responsibilities of the Cold Iron Watch
4. Abnormal Conditions
5. Good Housekeeping
6. Relieving the Watch
7. Summary and Review
8. Assignment

**ASSIGNMENT SHEET 1-6-2**
Cold Iron Watchstanding

A. Introduction

This material is to be completed prior to the material being covered in class.

B. Enabling Objectives

Refer to enabling objectives in Outline Sheet 1-6-1.

C. Study Assignment

1. Read Information Sheet 1-6-3

D. Study Questions

1. List abnormal conditions that may be found in a machinery space other than the ones listed in the information sheet.
2. What must cold iron watch do upon observing hot work in progress without a fire watch?

**INFORMATION SHEET 1-6-3**
Cold Iron Watchstanding

A. Introduction

This information describes the duties and responsibilities of the cold iron watch. It also describes abnormal conditions that may be encountered by the watch.

B. Reference

Engineering Administration NAVEDTRA 12147
Fireman NAVEDTRA 12001
Naval Surface Forces Engineering Department Organization Manual
COMNAVSURFLANTINST 3540.14; COMNAVSURFPACINST 3540.13

C. Information

I. The ship is in a cold iron status when it stops operating its engineering plant(s) and is receiving services from shore or other ships.

II. The cold iron watch is the person assigned to the main engineering spaces while the space is in a cold iron status.
   A. The cold iron watch will make frequent inspections of the assigned area. He or she will detect and prevent:
      1. flooding
      2. fire
      3. theft
      4. sabotage
      5. unauthorized personnel
      6. other abnormal conditions

III. The watchstander must have the skills to detect unusual noises, vibrations, odors, or events that may indicate abnormal conditions.
   A. Unexplained rise in bilge level may indicate flooding or leak.
   B. Strong, sharp odor of burning electrical insulation indicates Class Charlie fire.
   C. White smoke coming from a compartment indicates a Class Alpha fire.
   D. Black smoke coming from the machinery room indicates a Class Bravo fire.
   E. Hot bulkhead and blistering paint may indicate a fire in the next compartment.
   F. Broken or missing security locks and wire seals are signs of theft and/or sabotage.
   G. Missing nuts and bolts may indicate sabotage.
   H. Unusual noise and vibration may indicate faulty equipment operation.

I. Unusual gauge readings may indicate faulty equipment operation.

IV. The watchstander must be ready, in emergencies, to act quickly and independently.
   A. If the watchstander does not know whether the condition is abnormal or not, he or she must ask the immediate watch supervisor.

V. The cold iron watch will ensure that the spaces are in satisfactory condition:
   A. No tools, rags, and gear left adrift.
   B. Bilges are kept reasonably free of water.

VI. Fire prevention is vital to the survival of the ship.
   A. All non-essential combustible material must be taken off the ship.
   B. Combustible materials must be stowed properly.
      1. Combustible liquids must be stowed in special flammable liquid stowage.
      2. Combustible materials that cannot be stowed must be adequately protected from ignition sources.
   C. All spaces must be frequently and regularly inspected for fire and safety hazards.
      1. Safety precautions are to be prominently displayed and frequently distributed.
      2. Smoking areas must be confined to suitable areas.
      3. Trash cans must be emptied frequently and not be allowed to become full.
      4. Aerosols containing materials with a flash point less than 73 degrees Fahrenheit is not allowed onboard the ship unless authorized by a cognizant division officer.
      5. Possible ignition sources must be monitored and controlled.
         a) Examples: hot equipment, welding sparks, smoking lamp violations.
      6. Accumulation of fuels and oils in drip pans and other areas must be promptly removed

VII. When hot work is done in the watch area, the cold iron watch ensures that a fire watch is stationed.
   A. The fire watch stands by with a CO2 extinguisher.
   B. The cold iron watch will stop the hot work if the fire watch is not on station.

VIII. The cold iron watch makes his/her inspection round by touring the spaces he/she is responsible for:
   A. The watch must be able to detect and identify any unusual or hazardous condition that may occur during the watch.
   B. To conduct an inspection round of a cold iron space, follow the guidelines in detection and identification of unusual or hazardous conditions that have been discussed in this lesson.

IX. Standing a good watch is the best way to gain the respect and confidence of your supervisors and shipmates.
   A. Relieve the watch on time or a little early to have a good turn-over.
   B. Know the condition of the machinery and the things that need to be done prior to assuming the watch. Tour the space before relieving the watch.
      1. Do not relieve the watch first and then try to figure out the condition of the plant later.
      2. When being relieved, ensure that the relieving watchstander completely understands the situation of the plant.
      3. Before being relieved, ensure that the watchstation is clean and there is no gear adrift.